

NEW CALIFORNIA SPIDERS

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In June, 1905, in company with Mr. and Mrs. G. W. Peckham, the writer spent a week at Berkeley, California, collecting spiders, some of which have remained to this time undescribed. The recent collections of Mr. and Mrs. Van Duzee have revived interest in California spiders. Three apparently new species are here described. One of these, *Theridion punctipes*, belongs to the subgenus *Phyllonethis* and occurs in company with *Theridion placens* Keyserling and *Theridion californicum* Banks, both of which are described for comparison. All three spiders live among the leaves of plants. The other two new species resemble *T. murarium* of the Eastern United States and were mistaken for it at the time of collection, both living on walls and fences and in the stone work outside of houses. The types of the new species are in the author's collection.

1. *Theridion punctipes* Emerton, new species

About 4 mm. long and with a general pale yellow color. The cephalothorax is grayish with an indistinct darker middle stripe. The abdomen has a pale middle stripe and grayish sides with irregular markings in pairs mixed with fine black spots (Fig. 1). On the under side are grayish markings which obscure the epigynum, which is not as dark in color or as distinct as in the related species. The legs are banded lightly with gray at the ends and middle of the joints and marked with fine dark spots, most numerous on the femora and on the first and second legs. The mandibles are long in both sexes and in the male are as long as the cephalothorax (Fig. 2). The male palpi have the tibia longer than the tarus. The palpal organ is narrower toward the end and has the process on the under side smaller than in the related species (Fig. 3).

2. *THERIDION PLACENS* Keyserling

Four or five millimeters long and generally pale yellow. The under side is pale with the epigynum showing distinctly as a small black spot. The cephalothorax has a gray middle stripe. The abdomen has a pale middle stripe with gray markings at the sides, but these markings are most distinct on the hinder half and are often wanting entirely in front. The legs are pale, with hardly any gray at the ends of the joints. The male palpus has the tibia short. The palpal organ is narrowed toward the end and the inner process is large and blunt (Fig. 4).

3. *THERIDION CALIFORNICUM* Banks

Generally pale yellow and somewhat smaller than *placens* and *punctipes*. The abdomen is pale beneath, with the epigynum dark, and surrounded by a larger dark area. The dorsal colors are more variable than in the related species. The cephalothorax has a gray middle stripe, usually pale and often absent. The abdomen is usually pale with a middle stripe toward the posterior end and two translucent brownish lines. In some individuals there are black spots in pairs along the middle stripe and a black middle stripe with or without opaque white spots (Fig. 6). The male palpus has the tibia short. The palpal organ is blunt at the end and the inner process is long and sharp, resembling that of *T. frondeum* of the eastern coast (Fig. 5).

4. *Theridion stanfordi* Emerton, new species

Female 3 mm. long, male 2 mm. Cephalothorax gray without middle or lateral stripes. Abdomen spherical, gray with a distinct middle stripe the whole length, lighter in the middle and with darker edges. The sides have oblique rows of spots varying in distinctness in different individuals. The under side of the abdomen has a light spot in the middle surrounded by a dark area connected with the lateral markings. The general appearance is much like *T. murarium*. The epigynum has a wide opening half oval in shape (Fig. 9). The palpal organ has the tube flat against the under side, supported at the end by a small process (Fig. 7). The only male is much smaller than the females.

Found in carved stone outside buildings of Stanford University, and outside houses in Berkeley.

5. *Theridion berkeleyi* Emerton, new species

Male 3 mm. long. Color generally gray. Cephalothorax pale with dark middle and narrow side stripes. Abdomen with a light middle stripe and dark gray sides. The legs are dark at the end and middle of each joint. The male palpus (Fig. 8) resembles closely that of *T. murarium*, the tube has the same shape as in the latter species, but the supporting process at the end is longer and more slender. The hook on the inner side is much stouter than in *murarium* and slightly serrated.

Only one male was found, on the outside of a house at Berkeley.

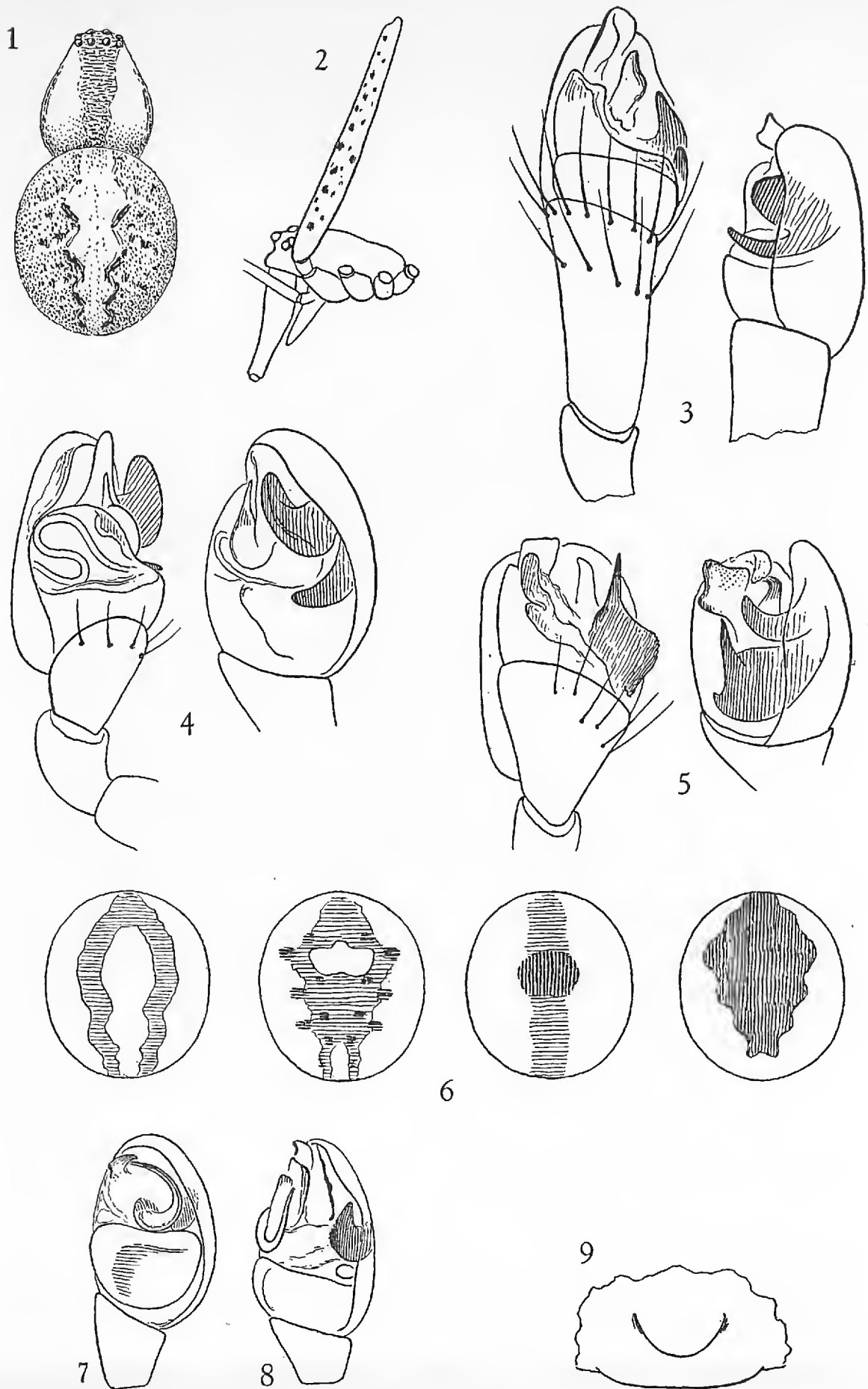


Fig. 1, Dorsal markings of *T. punctipes*. Fig. 2, Cephalothorax, mandibles and first femur of *T. punctipes*. Fig. 3, Male palpus of *T. punctipes*. Fig. 4, Male palpus of *T. placens*. Fig. 5, Male palpus of *T. californicum*. Fig. 6, Variations of dorsal markings of *T. californicum*. Fig. 7, Male palpus of *T. stanfordi*. Fig. 8, Male palpus of *T. berkeleyi*. Fig. 9, Epigynum of *T. stanfordi*.